

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

POWER OF ATTORNEY OR AUTHORIZATION OF AGENT AND CORRESPONDENCE ADDRESS

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|-------------------------------|------------------|
| <i>Application Number</i> | |
| <i>Filing Date</i> | |
| <i>First Named Inventor</i> | Robert J. Thomas |
| <i>Confirmation Number</i> | |
| <i>Group Art Unit</i> | |
| <i>Examiner Name</i> | |
| <i>Attorney Docket Number</i> | 1440.2032-001 |

Title GAS SYSTEMS AND METHODS FOR ENABLING RESPIRATORY STABILITY

I/We hereby appoint

☒ the attorneys/agents associated with **Customer No. 021005**

☐ Practitioner(s) named below:

as my/our attorneys/agents to prosecute the application identified above, including any continuation or divisional applications thereof, and to transact all business in the United States Patent and Trademark Office connected therewith.

The correspondence address for the above-identified application is:

☒ Customer Number 021005

Hamilton, Brook, Smith & Reynolds, P.C.

530 Virginia Road

P.O. Box 9133

Concord, Massachusetts 01742-9133

☐ Other _____

Please direct all telephone calls and facsimiles to:

Name Mary Lou Wakimura Tel. No. 978-341-0036 Fax No. 978-341-0136

I am the:

☐ Applicant/Inventor.

☒ Authorized representative of the Assignee, Beth Israel Deaconess Medical Center, Inc., of the entire interest. See 37 C.F.R. § 3.71. A Statement under 37 C.F.R. §3.73(b) is enclosed.

☐ Authorized representative of the Assignee, [], together with [], of the entire interest. A Statement under 37 C.F.R. § 3.73(b) is enclosed.

SIGNATURE of Applicant or Assignee of Record

Name & Title Mark Chalek, Director, Technology Ventures Office

Signature 

Date 11/12/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Declaration for Patent Application☐ Supplemental (37 C.F.R. §1.67)

As a named inventor, I hereby declare that:

My residence, mailing address and citizenship are as stated next to my name;

I believe I am the original, first and sole inventor (if only one name is listed) or an original, first and joint inventor (if plural names are listed in the signatory page(s) commencing at page 2 hereof) of the subject matter which is claimed and for which a patent is sought on the invention entitled

GAS SYSTEMS AND METHODS FOR ENABLING RESPIRATORY STABILITY

the specification of which (check one)

☒ is attached hereto.☐ was filed on [] as United States Application Number [].☐ was filed on [PCT Filing Date] as PCT International Application No. [PCT Appl'n No.].☐ and was amended on [] (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. §1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119 or 365 of any foreign application(s) for patent or inventor's certificate, or of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed:

| <u>Prior Foreign Application(s)</u> | | | Priority Not Claimed | Certified Copy Filed? | |
|-------------------------------------|--------------------|---------------------------------|----------------------------|--------------------------|-----|
| | | | | YES | NO |
| _____ (Number) | _____ (Country) | _____ (Day/Month/Year filed) | [] | [] | [] |
| _____ (Number) | _____ (Country) | _____ (Day/Month/Year filed) | [] | [] | [] |
| _____ (Number) | _____ (Country) | _____ (Day/Month/Year filed) | [] | [] | [] |

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole

or first inventor Robert J. Thomas

Inventor's Signature R. Thomas Date 11/11/03

Residence 100 Stanley Road

Newton, Massachusetts 02468

Citizenship USA

Mailing Address same as above

Full name of second joint

inventor, if any Robert W. Daly

Inventor's Signature _____ Date _____

Residence 85 Oak Street

Weston, Massachusetts 02493

Citizenship USA

Mailing Address same as above

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole

or first inventor Robert J. Thomas

Inventor's Signature _____ Date _____

Residence 100 Stanley Road

Newton, Massachusetts 02468

Citizenship USA

Mailing Address same as above

Full name of second joint

inventor, if any Robert W. Daly

Inventor's Signature Robert W. Daly Date 11/06/2003

Residence 85 Oak Street

Weston, Massachusetts 02493

Citizenship USA

Mailing Address same as above

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STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR 1.27(a))-NONPROFIT ORGANIZATION

DOCKET NUMBER: 1440.2032-001

Applicant or Patentee: Robert J. Thomas and Robert W. Daly
Application or Patent No.: _____
Filed or Issued: _____
Title: Gas Systems and Methods for Enabling Respiratory Stability

I hereby state that I am an official empowered to act on behalf of the nonprofit organization identified below:

NAME OF NONPROFIT ORGANIZATION Beth Israel Deaconess Medical Center, Inc.
ADDRESS OF NONPROFIT ORGANIZATION 330 Brookline Avenue
Boston, MA 02215

TYPE OF NONPROFIT ORGANIZATION:

- ☐ UNIVERSITY OR OTHER INSTITUTION OF HIGHER EDUCATION
☒ TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE (26 U.S.C.501(a) and 501(c)(3))
☐ NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA
(NAME OF STATE _____)
(CITATION OF STATUTE _____)
☐ WOULD QUALIFY AS TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE (26 U.S.C. 501(a) and 501(c)(3)) IF
LOCATED IN THE UNITED STATES OF AMERICA
☐ WOULD QUALIFY AS NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED
STATES OF AMERICA IF LOCATED IN THE UNITED STATES OF AMERICA
(NAME OF STATE _____)
(CITATION OF STATUTE _____)

I hereby state that the nonprofit organization identified above qualifies as a nonprofit organization as defined in 37 CFR 1.27(a)(3) for purposes of paying reduced fees to the United States Patent and Trademark Office regarding the invention described in:

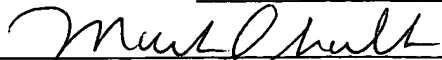
- ☒ the specification filed herewith with title as listed above.
☐ the application identified above.
☐ the patent identified above.

I hereby state that the rights under contract or law have been conveyed to and remain with the nonprofit organization regarding the above identified invention. If the rights held by the nonprofit organization are not exclusive, each individual, concern, or organization having rights in the invention must file separate statements as to their status as small entities. No rights to the invention are held by any person who would not qualify as a person under 37 CFR 1.27(a)(1) or by any concern which would not qualify as a small business concern under 37 CFR 1.27(a)(2) or a nonprofit organization under 37 CFR 1.27(a)(3).

Each additional person, concern, or organization having any rights in the invention is listed below:

- ☒ no such person, concern, or organization exists.
☐ each such person, concern, or organization is listed below.

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.27(g)(2))

NAME OF PERSON SIGNING Mark Chalek
TITLE IN ORGANIZATION OF PERSON SIGNING Chief, Business Ventures
ADDRESS OF PERSON SIGNING Beth Israel Deaconess Medical Center, Inc., 330 Brookline Avenue, Boston, MA 02215
SIGNATURE  DATE 11/12/03

COPY

Docket No. 1440.2032-001

Joint

ASSIGNMENT

WHEREAS, we, **Robert J. Thomas and Robert W. Daly**, have invented a certain improvement in **GAS SYSTEMS AND METHODS FOR ENABLING RESPIRATORY STABILITY** described in an application for Letters Patent of the United States,

- ☒ the specification of which is being executed on even date herewith and is about to be filed in the United States Patent Office;
- ☐ the specification of which was filed on [] as United States Application No. [];
- ☐ the specification of which is the United States National Stage of International Application No. [PCT Appl'n No.], filed on [PCT Filing Date];
- ☐ which was patented under United States Patent No. [] on [].

WHEREAS, **Beth Israel Deaconess Medical Center, Inc.** (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the **Commonwealth of Massachusetts**, and having a usual place of business at **330 Brookline Avenue, Boston, Massachusetts 02215** desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving

Docket No. 1440.2032-001

of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor's Signature: _____

R. Thomas

Robert J. Thomas

State/Commonwealth

of Massachusetts

County of Suffolk

Then personally appeared before me the above-named **Robert J. Thomas** and acknowledged that he executed the foregoing instrument as his free act and deed this 11th day of November, 20 03.

(SEAL)

Catherine Lenich

Notary Public

(print name)

My Commission expires ____/____/____

CATHERINE LENICH

Notary Public

My Commission Expires July 30, 2004

Inventor's Signature: _____

Robert W. Daly
Robert W. Daly

State/Commonwealth

of Massachusetts

County of Norfolk

Then personally appeared before me the above-named **Robert W. Daly** and acknowledged that he executed the foregoing instrument as his free act and deed this 6th day of November, 2003.

(SEAL)

Jeffrey K Savit
Jeffrey K Savit

Notary Public

(print name)

My Commission expires 12 / 11 / 2003

Docket No. 1440.2032-001

STATEMENT UNDER 37 C.F.R. § 3.73(b)

Inventor(s): Robert J. Thomas and Robert W. Daly

Application No./Patent No.: _____ Filed/Issue Date: _____

For: GAS SYSTEMS AND METHODS FOR ENABLING RESPIRATORY STABILITY

Beth Israel Deaconess Medical Center, Inc., a corporation,
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is

- A. ☒ the assignee of the entire right, title and interest in the patent application identified above; or
- B. ☐ an assignee together with ☐ of the entire right, title and interest in the patent application identified above.

The right, title and interest of the above-named assignee in the patent application identified above is established by virtue of:

- A. ☒ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s) of the patent application identified above, to the current assignee as shown below:

1. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or a copy thereof is attached.
2. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or a copy thereof is attached.
3. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Date: 11/12/07

Name: Mark Chalek

Title: Director, Technology Ventures Office

Signature: 